REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 5, 16, 22, 33, 39 and 45 are currently being amended. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 1-55 are now pending in this application.

Allowable Subject Matter

Applicants thank the Examiner for the comments regarding the allowable subject matter of claims 12, 18, 29, 35, 41 and 52.

Objections to the Drawings

The drawings were objected to because they do not depict a switch. However, the Applicants do not claim "a switch" in the present application. Several of the claims simply recite "switching on" or "switching off," meaning turning on or turning off the respective transmitter, receiver or interface. Applicants respectfully submit that the figures already show this functionality. Figures 6 depicts a process involving the step of switching on the transmitter of the second interface. Figure 7 depicts the change in power level of light at the second interface resulting from turning on and turning off the second interface in response to a cable break and cable repair, respectively. Applicants respectfully submit that the switching on/off functionality of the claims is sufficiently depicted in the drawings and request withdrawal of the objection. If the objection is maintained, further clarification is respectfully requested.

Rejections Under 35 USC 112

On page 3 of the Office Action, claims 22-29, 33-35, 39-41 and 45-52 were rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. On page 3, the Examiner states that Applicants have "claimed 'a switch to switch on second transmitter', which is not shown in the drawing." Applicants respectfully traverse the rejections.

The present application does not claim "a switch." The claims recite "switching on" and "switching off," meaning turning on and turning off the transmitter, receiver and/or interface. Applicants respectfully submit that the switching on/off functionality of the claims is sufficiently depicted in the drawings (See figures 6 and 7) as described above with respect to the drawing objections. Applicants respectfully request withdrawal of the rejection of claims 22-29, 33-35, 39-41 and 45-52 under 35 USC 112, first paragraph.

Rejections Under 35 USC 103

On page 3 of the Office Action, claims 5-7, 16, 17, 22-24, 33, 34, 39, 40 and 45-47 were rejected under 35 USC 103(a) as being unpatentable over US Patent No. 6,351,582 (Dyke) in view of US Patent No. 6,567,579 (Foltzer). Applicants respectfully traverse the rejections. Dyke in combination with Foltzer does not describe the Applicants' invention as recited in claims 5-7, 16, 17, 22-24, 33, 34, 39, 40 and 45-47.

Claim 5, as amended, requires, *inter alia*:

> **optically detecting at said second interface** a degradation in power level of said optical signals from said first interface

(emphasis added).

Claim 22, as amended, requires, *inter alia*:

> **a detector at said second interface for optically detecting** a degradation in power level of optical signals received from said first interface via said optical fiber

(emphasis added).

Claim 45, as amended, requires, *inter alia*:

> **a detector coupled to said fiber for optically detecting** a degradation in power level of incoming optical signals of said first wavelength via said fiber

(emphasis added).

On page 4 of the Office Action with respect to claim 1, on pages 6-7 with respect to claim 22, and on pages 10-11 with respect to claim 45, the Examiner states:

> Dyke does not specially [sic] disclose [sic] for detecting at said second interface a fault arising from said first interface based on signal degradation in power level.
>
> Foltzer discloses in col. 7, lines 26-38, for monitoring the fault of the optical system base [sic] on signal degradation in power level (i.e., quality degradation is detect). At the time of the invention was made, it would have been obvious to an artisan to implement the well known method for monitoring the fault of the optical system base on signal degradation in power level taught by Foltzer in the optical system of Dyke.

Foltzer does not teach, disclose or suggest optically detecting a degradation in power level of the optical signal as recited in claims 5, 22 and 45, as amended. The portion of Foltzer cited by the Examiner states that "the monitoring structure provided in the HDT [host digital terminal] is operable to determine the quality/integrity of the fiber paths by evaluating ONU transmissions (step 206)." Foltzer converts the optical signal into and electrical signal before sending the signal to a monitor. (See Figure 2; and col. 5, lines 23-26). This is not the same as **optically detecting** a degradation in power level of said optical signals as required by claims 5, 22 and 45, as amended. Claims 6-7 depend from claim 5, claims 23-24 depend from claim 22, and claims 46-47 depend from claim 45.

Thus, the combination of Dyke and Foltzer fails to disclose, teach or suggest each and every element required by claims 5-7, 22-24 and 45-47. The rejection of claims 5-7, 22-24 and 45-47 under 35 USC 103(a) cannot be properly maintained.

Claim 16, as amended, requires, *inter alia*:

> **detecting in said first interface** that signals are not received from at least one optical network unit; and in response to detection, **switching on said second interface**

(emphasis added).

Claim 33, as amended, requires, *inter alia*:

> detecting means for **detecting that signals are not received at said first interface** from at least one optical network unit; and sending means for sending to said second interface a **message to switch on said second interfac**e

(emphasis added).

Claim 39, as amended, requires, *inter alia*:

> detecting means for detecting that optical signals are not received from at least one optical network unit; and
> sending means for sending to said second interface a **message to switch on said second interface**

(emphasis added).

On page 5 of the Office Action with respect to claim 16, on pages 8 with respect to claim 33, and on page 9 with respect to claim 45, the Examiner states:

> Dyke does not specially [sic] disclose [sic] for detecting in said first interface that signals are not received from at least one optical network unit.
>
> Foltzer discloses in col. 7, lines 26-38, for monitoring the fault of the optical system base [sic] on detecting in said first interface that signals are not received from at least one optical network unit (i.e., fiber breakage fault). At the time of the invention was made, it would have been obvious to an artisan to implement the well known method for monitoring the fault of the optical system base on detecting in said first interface that signals are not received from

> at least one optical network unit (i.e., fiber breakage fault) taught by Foltzer in the optical system of Dyke.

Foltzer does not teach, disclose or suggest detecting that signals are not received from at least one ONU and switching on or sending a message to "switch on said second interface" as recited in claims 16, 33 and 39, as amended.

The portion of Foltzer cited by the Examiner (col. 5, lines 23-35) states:

> Continuing to refer to FIG. 2, suitable opto-electronics are provided at the receiver and transmitter blocks of the transceiver sets of HDT 102 for signal reception, transmission, conversion, shaping, processing, analysis, et cetera. Further, the optical signals received at each receiver block of transceiver set 110 are provided to a monitor 120 for **comparing and analyzing the upstream signals received on the both optical paths** of the local loop. The monitoring structure 120 is thus **operable to identify the relative signal strengths** of a particular wavelength emanating from the downstream ONU node(s) such that localized electro-optical failures or fiber breakage (causing "silent failures") of the optical paths can be advantageously detected."

(emphasis added). Foltzer compares and analyzes the signals received at both optical receivers (first receiver and second receiver) to determine failures. One of ordinary skill in the art would not combine the monitoring system of Foltzer with Dyke because the second transceiver of Dyke is not activated until after a fault even occurs, but Foltzer utilizes both receivers to monitor for faults. Dyke states that "[i]n the event of a fault arising in the distribution network 211 or main transceiver 201 the warm standby transceiver 202 comes into operation to transmit to the ONUs and to process signals received from them. (Col. 6 lines 1-4). Adding the monitoring system of Foltzer to Dyke would result in an inoperable monitoring system because the monitoring system would receive only one signal from the first transceiver when it actually requires signals from both the first and second transceivers to function. Claim 17 depends from claim 16, claim 34 depends from claim 33, and claim 40 depends from claim 39.

Thus, it is improper to combine Dyke and Foltzer. The rejections of claims 16, 17, 33, 34, 39 and 40 under 35 USC 103(a) cannot be properly maintained.

On pages 8-9, claims 8-11, 25-28 and 48-51 were rejected under 35 USC 103(a) as being unpatentable over Dyke in view of Foltzer and further in view of US PG Publication No. 2002/0093714 (Tokita). Applicants respectfully traverse the rejections. Dyke in combination with Foltzer and Tokita does not describe the Applicants' invention as recited in claims 8-11, 25-28 and 48-51.

Claims 8-11 depend from independent claim 5 and are allowable for at least the same reasons as described above with respect to claim 5, as amended. Claims 25-28 depend from independent claim 22 and are allowable for at least the same reasons as described above with respect to claim 22, as amended. Claims 48-51 depend from independent claim 45 and are allowable for at least the same reasons as described above with respect to claim 45, as amended.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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